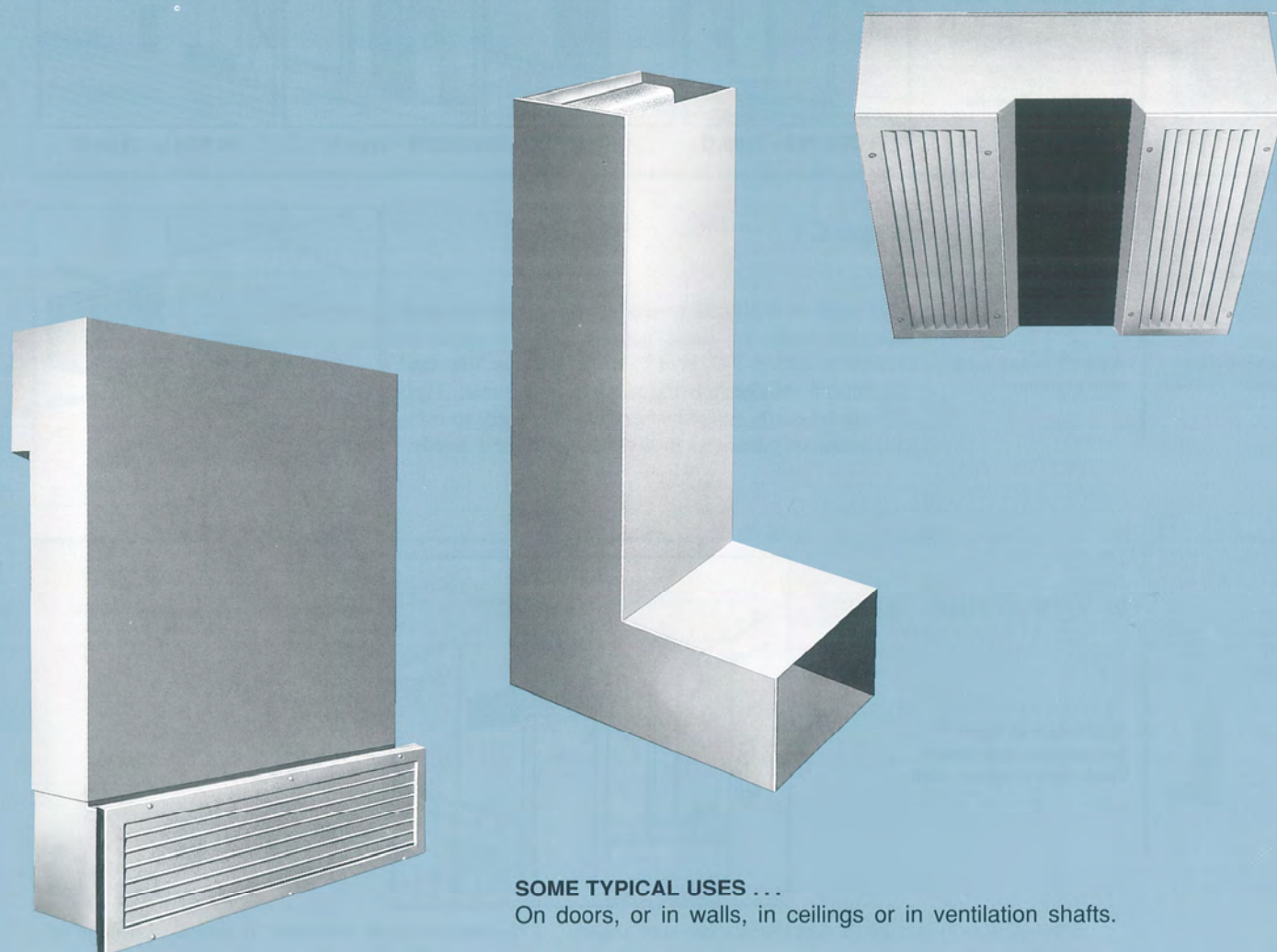


noise control for air handling systems

Quiet-VENT® Silencers

for air transfer systems



SOME TYPICAL USES . . .

On doors, or in walls, in ceilings or in ventilation shafts.

Business & doctors' offices • Music & conference rooms •
Auditoriums & hospitals • Security & consulting rooms •
Laboratories & test rooms • Kitchens & bath rooms • Rest
rooms & lavatories • Hotels & institutions • Schools, homes
& factories • Hallways & air shafts • Reception areas



INDUSTRIAL ACOUSTICS COMPANY

QUIET-VENT SILENCERS solve a common problem in air-handling - the passage of noise from one space to another through vents provided for the passage of air. These modern, low cost units are easy to install, permit circulation of air in either direction, yet effectively stop noise in

both directions. They provide full ventilation *plus* quiet and privacy. Quiet-VENT Silencers are made in standard types which cover most applications - such as offices, conference rooms, consultations rooms, rest rooms, music rooms, hotel guest rooms and apartment house kitchens and bathrooms.

Quiet-VENTS of types other than those shown are available for special needs. Contact IAC to discuss specifics .

for Multi-Purpose: Types C, H, and W

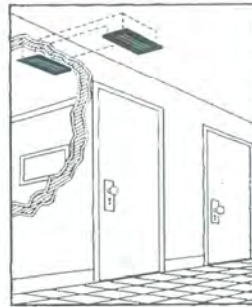
These versatile units may be mounted on or in walls, on doors, in ceiling...wherever air must pass but noise must be blocked. They meet most architectural needs in the standard models available...but where special designs are needed, we invite your inquiry. The elbows are removable from the body of the units.



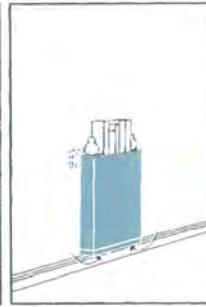
Type C for ceiling installation.

Type H for exposed installation on wall or door

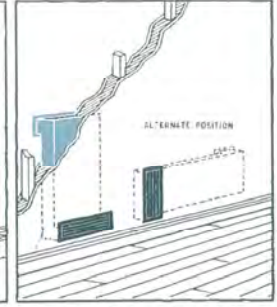
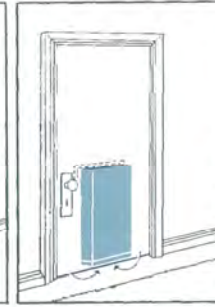
Type W for installation in wall



IN CEILING - Type C



ON WALL & ON DOOR - Type H



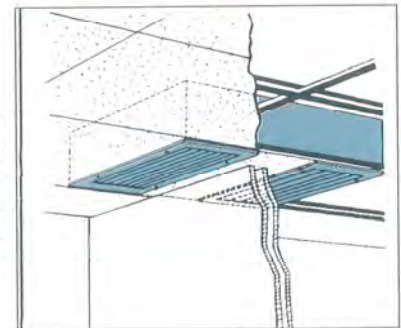
IN WALL - Type W

for Tile Ceilings: Type CT



Type CT over a movable partition

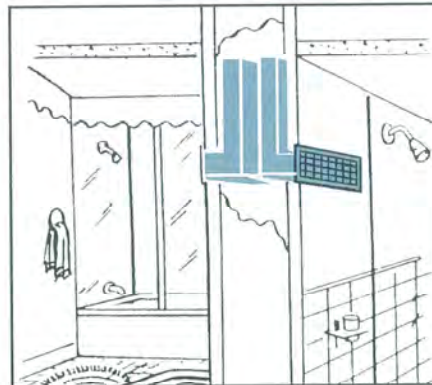
This type is designed to replace a ceiling tile over movable walls or fixed partitions. It is sized to replace a 24" x 24" or 12" x 24" ceiling tile, and fits into all standard ceiling suspension systems. Type CT can be easily moved when it is necessary to relocate walls or partitions to accommodate new needs.



for Vent Shafts: Type S



Application of Type S in multiple installation involving a common shaft.



This silencer is designed specifically for vent shaft installations in apartment buildings, hotels or similar structures to silence the noise from kitchens, bathrooms or lavatories. Stale, noxious air passes through the Quiet-VENT from each room served by the common shaft, and is vented outside the building.

The acoustical construction of the Type S unit *blocks noise* from passing into the shaft and areas

connected to it; however, it permits passage of exhaust air. This silencer also prevents exhaust fan noise from entering the rooms served by the vent shaft. Type S thus stops undesired crosstalk and "intercom" effects.

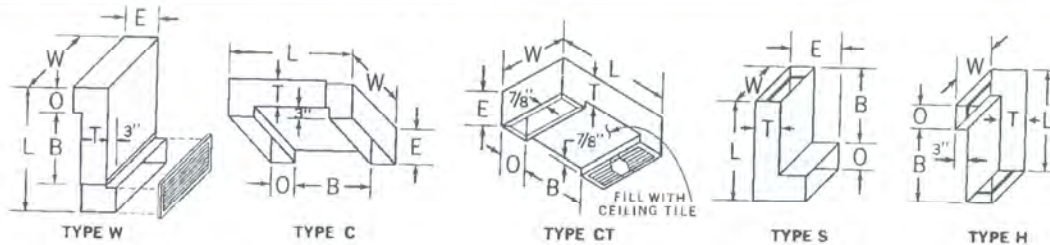
Type S Quiet-VENTS are designed for new construction. Special types are available for use in existing buildings.

Comparison of ACOUSTIC PERFORMANCE Noise Reduction in Decibels

NOISE REDUCTION (NR) is the measured difference in the sound pressure levels between two rooms separated by a wall containing a Quiet-VENT Silencer for the transfer of air.

ITEM AND DESCRIPTION		Octave Bands Hz.	63	125	250	500	1000	2000	4000	8000	*NR (SIL) ↓
		Octave Band No's.	1	2	3	4	5	6	7	8	
		Speech Interference Bands									
		↓ Noise Reduction in Decibels ↓									
QUIET-VENT	Multi-Purpose: Types C, H and W		23	32	35	41	51	57	58	50	50
	Tile Ceilings: Type CT		17	22	25	32	42	48	50	41	41
	Vent Shafts: Type S		23	32	35	41	51	57	58	50	50
DOOR	Thin door hung normally		19	23	25	32	31	31	29	32	30
	Thick door tight closure		22	25	28	34	35	39	41	45	38
WINDOW	1/4" panes (2) 1/2" air space		19	19	19	30	38	38	33	28	36
	1/8" panes (2) 1 1/2" air space		27	30	32	38	48	46	46	47	47
WALL	4" gypsum blocks plaster 1 side		23	29	31	39	45	48	52	55	48
FLOOR AND CEILING	4" thick reinforced concrete slab	FLOORS & CEILINGS of normal multi-story construction are usually satisfactory for conversation or music privacy. This does not apply for structure-borne noise.									

***NR (SIL) = Noise Reduction (Speech Interference Level)**
This is the average noise reduction in the three speech-interference octave bands 4, 5, and 6 (500, 1000, and 2000 Hz. Center Frequencies, respectively).



DIMENSIONAL DATA - IN INCHES

AIRFLOW DATA - IN CFM

for MULTI-PURPOSE: TYPES C, H, and W									Static Pressure Drop, Inches H ₂ O				
Model	T	W*	O	B	E	L		Ship wt. Lbs.	0.05	0.10	0.15	0.20	0.25
						C&W	H						
414	3 1/2	14	6	35 1/4	6 1/2	48	41 1/4	28	122	180	222	253	285
430	3 1/2	30	6	35 1/4	6 1/2	48	41 1/4	60	260	385	475	545	610
442	3 1/2	42	6	35 1/4	6 1/2	48	41 1/4	85	365	540	665	760	855
614	5	14	8	31 1/4	8	48	39 1/4	30	173	256	316	363	406
630	5	30	8	31 1/4	8	48	39 1/4	65	375	550	680	780	875
642	5	42	8	31 1/4	8	48	39 1/4	90	520	770	950	1090	1220
814	7	14	10	27 1/4	10	48	37 1/4	35	243	360	443	506	569
830	7	30	10	27 1/4	10	48	37 1/4	75	520	770	950	1090	1220
842	7	42	10	27 1/4	10	48	37 1/4	100	730	1080	1330	1520	1710

*Available in other widths as required.
To determine nominal size of opening when ordering grilles for Types C, H, and W, use dimensions "W" and "O".
One elbow is detachable from Types C and W if desired.

for TILE CEILINGS: Type CT								Static Pressure Drop, Inches H ₂ O				
Model	T	W	O	B	E	L	Ship wt. Lbs.	0.05	0.10	0.15	0.20	0.25
1224	7 1/8	11 1/2	8 1/4	6	8	22 1/2	25	180	255	313	360	403

To determine nominal size of opening when ordering grilles for Type CT, deduct 1 3/4" from dimensions "W" and "O".

for VENT SHAFTS: Type S								Static Pressure Drop, Inches H ₂ O				
Model	T	W*	O	B	E	L	Ship wt. Lbs.	0.05	0.10	0.15	0.20	0.25
408	3 1/2	8	6	36	8 1/2	41 1/4	14	69	103	127	145	163
606	5	6	8	32	10	39 1/4	13	74	110	136	156	174
608	5	8	8	32	10	39 1/4	15	102	151	186	214	240
806	7	6	10	28	12	37 1/4	15	104	154	190	217	244
808	7	8	10	28	12	37 1/4	17	140	206	253	289	326

*Available in other widths as required.
To determine nominal size of opening when ordering grilles for Type S, use dimensions "W" and "O".

NOTE:

- Extensions on the elbows may be slit and bent back to form a frame for mounting grille, or cut off to the length needed to suit installation.
- Grilles are available at extra cost.
- All Quiet-VENTS are furnished unpainted. Prime or finish paint is available at extra cost.

NOTE:

Static pressure ratings at listed airflows are differential pressures which will exist with Quiet-VENTS (without grilles) installed between two rooms and/or areas.

How to order a Quiet-VENT Unit: always specify both the Type and Model number of unit, and whether grilles are required. For example: a VENT SHAFT UNIT 6" wide x 3 1/2" thick would be designated as Type S, Model 406.

SUGGESTED SPECIFICATIONS

General: Air transfer silencing units where shown or listed on plans shall be Quiet-VENT® silencers of the types and models indicated, and shall be products as manufactured by Industrial Acoustics Company.

Outer Castings shall be of unpainted 22 gauge galvanized sheet steel.

Interior Partitions shall be packed with inert, vermin-and moisture-proof mineral or glass fiber of the required density.

Pressure Drop shall not exceed.....i.w.g. without grilles in place when handling the required air volume, (cfm).

Noise Reduction: Performance of the silencing units shall be not less than the values listed hereafter (see Acoustics Performance Table shown on previous page).

Octave Band No.	1	2	3	4	5	6	7	8	(fill in the appropriate values for each band)
Noise Reduction									

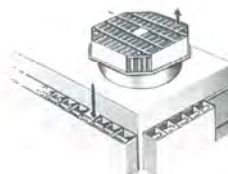
Other IAC Noise Control Products For Air Handling Systems . . .



DUCT SILENCERS of both tubular design (Conic-FLOW at left) and rectangular (Quiet-DUCT at right) are engineered with proven acoustical efficiency. They control fan noise in a mere fraction of the length required for lined duct. Both types of silencers are easily fitted into existing systems, or in the design stage of new projects.



Quiet-FLOW Plenums for acoustic/thermal use, are pre-engineered of acoustic panels. They isolate fan noise from adjacent areas and, in addition, reduce fan noise before the air stream enters duct.



Cooling Tower Silencers prevent acoustic annoyance to neighboring buildings. Custom engineered from standard IAC modules to fit individual requirements with maximum economy.

INDUSTRIAL ACOUSTICS COMPANY is the foremost and largest designer and manufacturer of Noise Control Equipment. Whatever the noise problem encountered in air handling systems, IAC has an engineered acoustical product to solve it. A case in point is the remarkable louvered intake silencer designed and built by IAC for Lever House in 1951. Measuring 70' x 15' in cross section, it serves all the air intake requirements of this unique commercial structure and is STILL the largest single unit of this type ever built. Over 1,000,000 IAC air handling silencers are currently in use throughout the world. • Since its founding in 1949, IAC has engaged in acoustical engineering research leading to a broad range of widely used products - from soundproof medical rooms for the detection of barely audible heart murmurs, to suppressors for jet engine noise. IAC also supplies, for almost every application, soundproof rooms and doors, silencers for gas turbines, forced draft fans, and engines as well as acoustical movable walls and partitions. • The creation and improvement of highly engineered and standardized noise control products is a continuous process at IAC.

Bulletin illustrates general appearance of product at time of publication. We reserve the right to change design and specifications, without notice at any time.

OTHER HIGHLIGHTS FROM IAC'S COMPLETE LINE • Air Conditioning Silencers, Fan Plenum Enclosures. • Moduline® Acoustical Structures • Soundproof Doors, Movable Partitions • Soundproof Medical/Life Science Rooms for Audiometry, Bioacoustics, Cardiology. • Silencing Systems for Forced Draft Fans and Gas Turbine Power Plants.



718-931-8000
INDUSTRIAL ACOUSTICS COMPANY
 1160 Commerce Avenue, Bronx, New York 10462-5599 USA
 UK: Winchester, Hampshire Germany: Niederkrüchten

e-mail: info@industrialacoustics.com
 fax: (718)-863-1138
 website: www.industrialacoustics.com

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